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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,249	04/04/2005	Masahiko Terakado	Q87291	9920
65565 7590 01/19/2007 SUGHRUE-265550 2100 PENNSYLVANIA AVE. NW WASHINGTON, DC 20037-3213			EXAMINER MURRAY, JEEFREY H	
			ART UNIT	PAPER NUMBER
			1609	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
31 DAYS		01/19/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/530,249

Applicant(s)

TERAKADO ET AL.

Examiner

Jeffrey H. Murray

Art Unit

1609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-76 and 80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-76 and 80 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

- I. A compound of the formula (I-J), according to Claims 1-2, 56-58, classified in class 546, and various subclasses depending on the nature of the substituents.
- II. A compound of the formula (I-N), according to Claims 1-2, 59-61, classified in class 546, and various subclasses depending on the nature of the substituents.
- III. A compound of the formula (I-K-1-1), according to Claims 1-2, 59-61, classified in class 548, and various subclasses depending on the nature of the substituents.
- IV. A compound of the formula (I-K-1-2), according to Claims 1-2, 59-61, classified in class 548, and various subclasses depending on the nature of the substituents.

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- V. A compound of the formula (I-L), according to Claims 1-2, 62-64, classified in class 544, and various subclasses depending on the nature of the substituents.
- VI. A compound of the formula (I-O-1-1), according to Claims 1-2, 62-64, classified in class 546, and various subclasses depending on the nature of the substituents.
- VII. A compound of the formula (I-O-1-2), according to Claims 1-2, 62-64, classified in class 544, and various subclasses depending on the nature of the substituents.
- VIII. A compound of the formula (I-O-1-3), according to Claims 1-2, 62-64, classified in class 544, and various subclasses depending on the nature of the substituents.
- IX. A compound of the formula (I-O-1-4), according to Claims 1-2, 62-64, classified in class 540, and various subclasses depending on the nature of the substituents.
- X. A compound of the formula (I-O-1-5), according to Claims 1-2, 62-64, classified in class 540, and various subclasses depending on the nature of the substituents.
- XI. A compound of the formula (I-M-1-1), according to Claims 1-2, 65-67, classified in class 548, and various subclasses depending on the nature of the substituents.

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- XII. A compound of the formula (I-M-1-2), according to Claims 1-2, 65-67, classified in class 548, and various subclasses depending on the nature of the substituents.
- XIII. A compound of the formula (I-M-1-3), according to Claims 1-2, 65-67, classified in class 548, and various subclasses depending on the nature of the substituents.
- XIV. A compound of the formula (I-A), according to Claims 1-2 and 68, classified in class 544, and various subclasses depending on the nature of the substituents.
- XV. A compound of the formula (I-B), according to Claims 1-2 and 68, classified in class 544, and various subclasses depending on the nature of the substituents.
- XVI. A compound of the formula (I-C), according to Claims 1-2 and 68, classified in class 548, and various subclasses depending on the nature of the substituents.
- XVII. A compound of the formula (I-D), according to Claims 1-2 and 68, classified in class 544, and various subclasses depending on the nature of the substituents.
- XVIII. A compound of the formula (I-E), according to Claims 1-2 and 68, classified in class 548, and various subclasses depending on the nature of the substituents.

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- XIX. Claims 1-55, 57-66, drawn to the compounds not included in Groups I – XVIII, classified in various classes and subclasses depending on the nature of the substituents.
- XX. A method for prevention and/or treatment of diseases referred from EDG-2, according to the Claims 1, 74-76, classified in Class 514, and various subclasses depending on the nature of the substituents.
- XXI. A composition, according to the Claims 1, 69-73, 80, classified in various classes and subclasses depending on the nature of the substituents.

2. The inventions listed as Groups I – Groups XXI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Group I defines compounds with a ring formation that exists between K and R¹, a substituent of the cyclic ring A. Group II defines compounds with a ring formation that exists between K and R³, which is a substituent of the cyclic ring D, not A. In Group III, compounds with a bicyclic ring exists between the D ring and a heterocyclic ring, which contains only one nitrogen. In Group IV, the compounds have a bicyclic ring that also exists between the D ring and a heterocyclic ring however there are two nitrogens present in the heterocyclic ring, not just one. In Group V, the compounds contain a ring formation between Q and the cyclic ring A. In Group VI, the compounds have a ring formation that exists between Q and

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the cyclic ring A, which results in a benzothiazinone derivative. In Group VII, the compounds contain a ring formation that exists between Q and the cyclic ring A, forming a tetrahydroquinazolinone derivative. In the compounds of Group VIII, the a ring formation of the compounds exists between Q and the cyclic ring A, resulting in a dihydroquinazolinone derivative. In Group IX, a ring formation exists between Q and R¹⁻¹, a substituent of the cyclic ring A, forming compounds that are dihydrobenzoazepinone derivatives. In Group X, a ring formation exists between Q and R¹⁻¹, a substituent of the cyclic ring A, forming compounds that are dihydrobenzoazepine-1,4-dione derivatives.

In Group XI, a ring formation exists between Q and K, whereby a compound containing a pyrrolidine ring is formed. This ring is connected to K¹ group in the 2-position and an oxygen linker in the 3-position. In Group XII, again a ring formation exists between Q and K, whereby a pyrrolidine ring exists. This ring is connected to a K¹ group in the 2-position and an oxygen linker in the 4-position. In Group XIII, the compounds' ring formations exists between Q and K, whereby a pyrrolidine ring exists. This ring is connected to a K¹ group in the 2-position and an oxygen linker in the 5-position. Group XIV contains compounds with a ring formation exists between K and R¹, a substituent of the cyclic ring A, where T is an alcohol. However in Group XV, the compounds contain a ring formation between K and R¹, a substituent of the cyclic ring A, where T is now a ketone. In Group XVI, group T contains a ketone and group Q and ring D combine to form an indole. In Group XVII, group T contains a ketone and group Q and ring D combine to form a benzoimidazole. In Group XVIII, group T contains a ketone

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and is directly connected to a pyrrolidine. Group XIX is a collection of claims that contain compounds that do not fall under any of the other groups previously mentioned here. In Group XX, the claims are directed to a method of how to prevent and/or treat diseases that are referred from EDG-2 are discussed. Finally, Group XXII further defines some of the compounds as compositions and salts thereof.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey H. Murray whose telephone number is (571) 272-9023. The examiner can normally be reached on M-F 7:30-5pm EST.

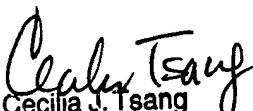
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on 571-272-0811 or

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Cecilia Tsang can be reached at 571-272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey H. Murray



Cecilia J. Tsang
Supervisory Patent Examiner
Technology Center 1600